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|--------|------|-------|-------|--|
| NEWS | 1 | | | Web Page for STN Seminar Schedule - N. America |
| NEWS | | OCT | 0.2 | CA/CAplus enhanced with pre-1907 records from Chemisches |
| MEMO | - | 001 | 02 | Zentralblatt |
| NEWS | 3 | OCT | 19 | BEILSTEIN updated with new compounds |
| NEWS | | NOV | | Derwent Indian patent publication number format enhanced |
| NEWS | | NOV | | WPIX enhanced with XML display format |
| NEWS | | NOV | | ICSD reloaded with enhancements |
| NEWS | | DEC | | LINPADOCDB now available on STN |
| NEWS | | DEC | | BEILSTEIN pricing structure to change |
| NEWS | | DEC | | USPATOLD added to additional database clusters |
| NEWS | | | | IMSDRUGCONF removed from database clusters and STN |
| NEWS | | | | DGENE now includes more than 10 million sequences |
| NEWS | | DEC | | TOXCENTER enhanced with 2008 MeSH vocabulary in |
| MEND | 12 | DEC | 1 | MEDLINE segment |
| NEWS | 13 | DEC | 17 | MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary |
| NEWS | | | | CA/CAplus enhanced with new custom IPC display formats |
| NEWS | | | | STN Viewer enhanced with full-text patent content |
| | | | | from USPATOLD |
| NEWS | 16 | JAN | 0.2 | STN pricing information for 2008 now available |
| NEWS | | JAN | | CAS patent coverage enhanced to include exemplified |
| 112110 | - ' | 01111 | | prophetic substances |
| NEWS | 1.8 | JAN | 28 | USPATFULL, USPAT2, and USPATOLD enhanced with new |
| 112110 | 20 | 01111 | 20 | custom IPC display formats |
| NEWS | 19 | JAN | 28 | MARPAT searching enhanced |
| NEWS | | JAN | | USGENE now provides USPTO sequence data within 3 days |
| | | | | of publication |
| NEWS | 21 | JAN | 28 | TOXCENTER enhanced with reloaded MEDLINE segment |
| NEWS | 22 | JAN | 28 | MEDLINE and LMEDLINE reloaded with enhancements |
| NEWS | 23 | FEB | 0.8 | STN Express, Version 8.3, now available |
| NEWS | 24 | FEB | 20 | PCI now available as a replacement to DPCI |
| NEWS | 25 | FEB | 25 | IFIREF reloaded with enhancements |
| NEWS | 26 | FEB | 25 | IMSPRODUCT reloaded with enhancements |
| NEWS | 27 | FEB | 29 | WPINDEX/WPIDS/WPIX enhanced with ECLA and current |
| | | | | U.S. National Patent Classification |
| NEWS | 28 | MAR | 31 | IFICDB, IFIPAT, and IFIUDB enhanced with new custom |
| | | | | IPC display formats |
| NEWS | 29 | MAR | 31 | CAS REGISTRY enhanced with additional experimental |
| | | | | spectra |
| NEWS | 30 | MAR | 31 | CA/CAplus and CASREACT patent number format for U.S. |
| | | | | applications updated |
| NEWS | 31 | MAR | 31 | LPCI now available as a replacement to LDPCI |
| NEWS | 32 | MAR | 31 | EMBASE, EMBAL, and LEMBASE reloaded with enhancements |
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AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

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chain nodes:
11 12 13 14
ring nodes:
12 3 4 5 6 7 8 9
chain bonds:
1-11 6-13 7-12 8-14
ring bonds:
1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-9 7-8 8-9
exact/norm bonds:
1-2 1-6 1-11 2-3 3-4 4-5 5-6 6-13 7-12 8-14
exact bonds:
4-7 5-9 7-8 8-9
isolated ring systems:
containing 1:

Match level: 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 11:CLASS 12:CLASS 13:Atom 14:CLASS

L1 STRUCTURE UPLOADED

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100.0% PROCESSED 128 ITERATIONS 2 ANSWERS SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
PROJECTED ITERATIONS: 1882 TO 3238
PROJECTED ANSWERS: 2 TO 124

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=> s 11 fu11 FULL SEARCH INITIATED 17:26:29 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 2591 TO ITERATE

100.0% PROCESSED 2591 ITERATIONS SEARCH TIME: 00.00.01

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TOTAL ENTRY SESSION

FULL ESTIMATED COST

178.36 178.57

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L4 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:516682 CAPLUS

DOCUMENT NUMBER: 145:27972

TITLE: Process for palladium catalyzed C-N coupling INVENTOR(S): Schlummer, Bjoern; Scholz, Ulrich; Smith, Ian

PATENT ASSIGNEE(S): Ucb, S.A., Belg.
SOURCE: PCT Int. Appl., 28 pp

SOURCE: PCT Int. Appl., 28 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PA | PATENT NO. | | | KIN | D | DATE | | | | LICAT | | NO. | | DATE | | | |
|---------|------------|------|------|-----|-----|------|------|------|-----|-------|-------|------|------|------|-----|------|-----|
| WO | 2006 | 0564 | 12 | | A1 | | 2006 | 0601 | | | 2005- | | 509 | | 2 | 0051 | 123 |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB | , BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ | , EC, | EE, | EG, | ES, | FI, | GB, | GD, |
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| DE | 1020 | 0405 | 6821 | | A1 | | 2006 | 0601 | | DE | 2004- | 1020 | 0405 | 6821 | 2 | 0041 | 124 |
| AU | 2005 | 3089 | 41 | | A1 | | 2006 | 0601 | | AU | 2005- | 3089 | 41 | | 2 | 0051 | 123 |
| | | | | | | | | | | | 2005- | | | | | | |
| EP | 1817 | 313 | | | A1 | | 2007 | 0815 | | EP | 2005- | 8082 | 96 | | 2 | 0051 | 123 |
| | R: | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE | , ES, | FI, | FR, | GB, | GR, | HU, | ΙE, |
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| | | BA, | HR, | MK, | YU | | | | | | | | | | | | |
| IN | 2007 | DN03 | 451 | | A | | 2007 | 0831 | | IN | 2007- | DN34 | 51 | | 2 | 0070 | 509 |
| KR | 2007 | 0865 | 65 | | A | | 2007 | 0827 | | KR | 2007- | 7142 | 54 | | 2 | 0070 | 622 |
| PRIORIT | Y APP | LN. | INFO | . : | | | | | | DE | 2004- | 1020 | 0405 | 6821 | A 2 | 0041 | 124 |
| | | | | | | | | | | DE | 2004- | 1020 | 0405 | 6820 | A 2 | 0041 | 124 |
| | | | | | | | | | | WO | 2005- | EP12 | 509 | 1 | 7 2 | 0051 | 123 |
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OTHER SOURCE(S): CASREACT 145:27972; MARPAT 145:27972

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AB The invention relates to a process for the preparation of thieno[2,3-b]pyridine derivs. I [wherein X = 0, S, NH, or CH2; Y = 0 or S; Z and B = independently N or CH; R1-R3 = independently H, (pseudo)halo, OH, NO2, (un)substituted alkyl, alkoxy, aryl, etc.; R4 = H, (un)substituted alkyl, aryl, or arylalkyl; R = independently H, (pseudo)halo, OH, NO2, (un)substituted alkyl, alkoxy, aryl, etc.; n = 0-5] comprising coupling of

an aryl halide or an aryloxysulfonyl compound with an amine in the presence of palladium catalyst. For example, 3-amino-6-oxo-7-phenyl-6,7-

dihydrothieno[2,3-b]pyridine-2-nitrile was reacted with 3-bromotoluene in the presence of tris(dibenzylideneacetone)palladium, a phosphorus ligand, and potassium phosphate to give II (87%). The process is useful for the formation of C-N bonds.

- IT 639481-33-7
 - RL: RCT (Reactant); RACT (Reactant or reagent)
 (palladium catalyzed C-N coupling)
- (palladium catalyzed C-N coupling RN 639481-33-7 CAPLUS
- CN Thieno(2,3-b)pyridine-2-carbonitrile, 3-amino-6,7-dihydro-6-oxo-7-phenyl-(CA INDEX NAME)

REFERENCE COUNT:

11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L4 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:409526 CAPLUS

DOCUMENT NUMBER: 142:463710

TITLE: Preparation of thieno[2,3-b]pyridinone derivatives as kinase, especially p38 MAP kinase, inhibitors useful in the treatment of and/or prevention of immune or

inflammatory disorders

INVENTOR(S): Alexander, Rikki Peter; Davis, Jeremy Martin;

Hutchings, Martin Clive; Laing, Victoria Elizabeth;

Trevitt, Graham Peter
PATENT ASSIGNEE(S): Celltech R & D Limited, UK

SOURCE: PCT Int. Appl., 181 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PI | PATENT NO. | | | | | APPLICATION NO. | | | | | | | | | | | | |
|--------|------------|------|------|-----|-----|-----------------|------|------|-----|------|------|------|-----|-----|-----|------|-----|----|
| WC | 2005 | 0425 | 40 | | A1 | | 2005 | 0512 | | | | | | | 2 | 0041 | 022 | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KΡ, | KR, | ΚZ, | LC, | |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | NI, | |
| | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | |
| | | ΤJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | |
| | RW: | BW, | GH, | GM, | KΕ, | LS, | MW, | ΜZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | |
| | | AZ, | BY, | KG, | ΚZ, | MD, | RU, | ΤJ, | TM, | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | |
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| | | | | | BF, | ВJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | NE, | |
| | | | TD, | | | | | | | | | | | | | | | |
| | J 2004 | | | | | | | | | | | | | | | | | |
| | A 2540 | | | | | | 2005 | | | | | | | | | | | |
| E | 1680 | | | | | | | | | | | | | | | | | |
| | R: | | | | | | ES, | | | | | | | | | | | |
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| | 2007 | | | | | | 2007 | | | | | | | | | | | |
| | 3 2007 | | | | A1 | | 2007 | 0405 | | | | | | | | | | |
| PRIORI | ry App | LN. | INFO | . : | | | | | | | | 2490 | | | | | | |
| | | | | | | | | | | GB 2 | 003- | 2949 | 0 | | A 2 | 0031 | 219 | |
| | | | | | | | | | | GB 2 | 004- | 2918 | | | A 2 | 0040 | 210 | |
| | | | | | | | | | | | | 1693 | | | | 0040 | | |
| | | | | | | | | | | WO 2 | 004- | GB44 | 90 | 1 | W 2 | 0041 | 022 | |

OTHER SOURCE(S): MARPAT 142:463710

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ΙI

AB Title compds. I [wherein R1 = (un)substituted (C3-7 cycloalkyl)methyl, hetero/aryl R2 = H, NO2, CN, CO2H and derivs., NH2 and derivs., etc.; R3 = (un)substituted hetero/aryl; and their pharmaceutically acceptable salts] were prepared as p38 MAP kinase inhibitors for treating and/or preventing immune or inflammatory disorders. For example, II was prepared by reacting Et 3-bromo-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate (preparation given) with 3-methylbenzaldehyde and oxidation with MnO2.

I are potent inhibitors of p38 MAP kinase (IC50 around 2 μM and below), especially p38α kinase.

IT 639481-33-7p, 3-Amino-6-oxo-7-phenyl-6,7-d-ihydrothieno[2,3-b]pyridine-2-carbonitrile 639481-35-9p, 3-Amino-7-(2-chlorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile 817177-56-3p, 3-Amino-2-nitro-7-phenylthieno[2,3-b]pyridin-6(7H)-one 851748-38-4P, 3-Amino-7-(2-chlorophenyl)-2-nitrothieno[2,3-b]pyridin-6(7H)-one 851748-95-7P, 3-Amino-7-(2-fluorophenyl)-2-nitrothieno[2,3-b]pyridin-6(7H)-one 851748-90-1P, 3-Amino-7-(6-chloropyridin-3-yl)-2-nitrothieno[2,3-b]pyridin-6(7H)-one 851749-70-7P, 3-Amino-7-(2-fluorophenyl)-2-nitrothieno[2,3-b]pyridin-6(7H)-one 851749-19-70-7P, 3-D]pyridin-6(7H)-one 851749-11-3P, 3-Amino-7-(4-fluorophenyl)-2-nitrothieno[2,3-b]pyridin-6(7H)-one 851750-11-3P, 3-Amino-7-(4-fluorophenyl)-2-nitrothieno[2,3-b]pyridin-6(7H)-one RI: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (intermediate; preparation of thienopyridinones as p38 MAP kinase inhibitors

(intermediate; preparation of thienopyridinones as p38 MAP kinase inhibitors useful in the treatment of and/or prevention of immune or inflammatory disorders)

RN 639481-33-7 CAPLUS

CN Thieno[2,3-b]pyridine-2-carbonitrile, 3-amino-6,7-dihydro-6-oxo-7-phenyl-(CA INDEX NAME)

RN 639481-35-9 CAPLUS

CN Thieno[2,3-b]pyridine-2-carbonitrile, 3-amino-7-(2-chlorophenyl)-6,7-dihydro-6-oxo- (CA INDEX NAME)

RN 817177-56-3 CAPLUS

CN Thieno[2,3-b]pyridin-6(7H)-one, 3-amino-2-nitro-7-phenyl- (CA INDEX NAME)

RN 851748-38-4 CAPLUS

CN Thieno[2,3-b]pyridin-6(7H)-one, 3-amino-7-(2-chlorophenyl)-2-nitro- (CA INDEX NAME)

RN 851748-57-7 CAPLUS

CN Thieno[2,3-b]pyridin-6(7H)-one, 3-amino-7-(2-fluorophenyl)-2-nitro- (CA INDEX NAME)

NH2

RN 851748-69-1 CAPLUS CN Thieno[2,3-b]pyridin

Thieno(2,3-b)pyridin-6(7H)-one, 3-amino-7-(6-chloro-3-pyridiny1)-2-nitro-(CA INDEX NAME)

RN 851749-70-7 CAPLUS

CN Thieno[2,3-b]pyridin-6(7H)-one, 3-amino-7-(2,6-difluorophenyl)-2-nitro-(CA INDEX NAME)

RN 851749-97-8 CAPLUS

CN Thieno[2,3-b]pyridin-6(7H)-one, 3-amino-7-(4-methylphenyl)-2-nitro- (CA INDEX NAME)

RN 851750-11-3 CAPLUS

CN Thieno[2,3-b]pyridin-6(7H)-one, 3-amino-7-(4-fluorophenyl)-2-nitro- (CA INDEX NAME)

IIT 851748-71-5P, 3-Amino-7-(6-ethoxypyridin-3-y1)-2-nitrothieno[2,3-b]pyridin-6(7H)-one

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of thienopyridinones as p38 MAP kinase inhibitors useful in the treatment of and/or prevention of immune or inflammatory disorders)

RN 851748-71-5 CAPLUS

CN Thieno[2,3-b]pyridin-6(7H)-one, 3-amino-7-(6-ethoxy-3-pyridiny1)-2-nitro-(CA INDEX NAME)

REFERENCE COUNT:

5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L4 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1154722 CAPLUS

DOCUMENT NUMBER: 142:93797

TITLE: Process for preparing 3-aminothienopyridone

derivatives and their applications to the synthesis of

p38 MAP kinase inhibitors

INVENTOR(S): Evans, Graham Robert; Smith, Ian Harold; Tremayne,

Neil; Jones, Leighton; Langston, Marianne

PATENT ASSIGNEE(S): Celltech R & D Limited, UK

SOURCE: PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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| PATENT NO. | KIND | DATE | APPLICATION NO. | | | | | |
|-----------------------|-----------|-------------|---------------------|--------------------|--|--|--|--|
| WO 2004113349 | A1 | 20041229 | WO 2004-GB2680 | 20040618 | | | | |
| W: AE, AG, | AL, AM, A | T, AU, AZ, | BA, BB, BG, BR, BW, | BY, BZ, CA, CH, | | | | |
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| SN, TD, | rg | | | | | | | |
| AU 2004249507 | A1 | 20041229 | AU 2004-249507 | 20040618 | | | | |
| CA 2528927 | A1 | 20041229 | CA 2004-2528927 | 20040618 | | | | |
| EP 1638980 | A1 | 20060329 | EP 2004-743031 | 20040618 | | | | |
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| | | | JP 2006-516465 | | | | | |
| US 20070191608 | A1 | 20070816 | US 2006-561051 | 20060608 | | | | |
| PRIORITY APPLN. INFO. | : | | GB 2003-14493 | A 20030620 | | | | |
| | | | GB 2003-29471 | A 20031219 | | | | |
| | | | WO 2004-GB2680 | W 20040618 | | | | |
| OTHER SOURCE(S): | MARPA | T 142:9379 | 7 | | | | | |

AB This invention provides a class of 3-amino-7H-thieno[2,3-b]pvridin-6-one derivs. I [wherein R = cyano, NO2, CO2Alk2, C(O)alkyl, CONHHet2; Alk2 = (un) substituted alkyl or aryl; Het2 = (un) substituted 4/5/6-membered heterocycloalkyl; R1 = (un)substituted (hetero)aryl or (hetero)cycloalkyl; R2, R3 = H or a hydrogen atom precursor, or salts, solvates, hydrates, protected derivs. and N-oxides thereof], a process for their prepns., and the use thereof as intermediates in the manufacture of certain p38 MAP kinase inhibitors. For example, 2-cyano-N-phenylthioacetamide was treated with N,N-dimethyluracil to give crude thiolate II containing about 20% ethanol, which was directly refluxed with chloroacetonitrile in acetonitrile for 2 h to afford amine III. This compound underwent diazotization and subsequent halide displacement with tert-butylnitrite and CuBr2, leading to bromide IV. Pd-catalyzed N-alkylation of III with bromobenzene or amination of IV with aniline yielded V. Conversion of this product to the corresponding carboxamide was realized by the hydrolysis of the cyano group in the presence of NaOH-H2O-Ethanol system.

v

639481-33-7P, 3-Amino-6-oxo-7-phenyl-6,7-dihydrothieno[2,3b|pyridine-2-carbonitrile 639481-34-8P, 3-Amino-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylic acid ethyl ester 639481-35-9P, 3-Amino-7-(2-chlorophenvl)-6-oxo-6,7dihydrothieno[2,3-b]pyridine-2-carbonitrile 639481-42-8P, 3-Amino-7-cyclopropy1-6-oxo-6, 7-dihydrothieno[2,3-b]pyridine-2carbonitrile 817177-51-8P, 3-Amino-7-phenyl-2-[(pyrrolidin-1v1)carbonv1]-7H-thieno[2,3-b]pvridin-6-one 817177-53-0P 817177-55-2P, (S)-3-Amino-2-[(2-hydroxymethylpyrrolidin-1yl)carbonyl]-7-phenyl-7H-thieno[2,3-b]pyridin-6-one 817177-56-3P , 3-Amino-2-nitro-7-phenyl-7H-thieno[2,3-b]pyridin-6-one 817177-58-5P, 3-Amino-2-(4-ethylpiperazin-1-ylcarbonyl)-7-phenyl-7H-thieno[2,3-b]pyridin-6-one RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (process for preparing 3-aminothienopyridone derivs. and their applications to the synthesis of p38 MAP kinase inhibitors)

RN 639481-33-7 CAPLUS CN Thieno(2,3-b)pyridine-2-carbonitrile, 3-amino-6,7-dihydro-6-oxo-7-phenyl-(CA INDEX NAME)

RN 639481-34-8 CAPLUS

CN Thieno[2,3-b]pyridine-2-carboxylic acid, 3-amino-6,7-dihydro-6-oxo-7-phenyl-, ethyl ester (CA INDEX NAME)

RN 639481-35-9 CAPLUS

CN Thieno[2,3-b]pyridine-2-carbonitrile, 3-amino-7-(2-chlorophenyl)-6,7-dihydro-6-oxo- (CA INDEX NAME)

RN 639481-42-8 CAPLUS

CN Thieno[2,3-b]pyridine-2-carbonitrile, 3-amino-7-cyclopropyl-6,7-dihydro-6oxo- (CA INDEX NAME)

RN 817177-51-8 CAPLUS

CN Pyrrolidine, 1-[(3-amino-6,7-dihydro-6-oxo-7-phenylthieno[2,3-b]pyridin-2yl)carbonyl]- (9CI) (CA INDEX NAME)

RN 817177-53-0 CAPLUS

CN Pyrrolidine, 1-[(3-amino-6,7-dihydro-6-oxo-7-phenylthieno[2,3-b]pyridin-2yl)carbonyl]-3-[(tetrahydro-2H-pyran-2-yl)oxy]-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

- RN 817177-55-2 CAPLUS
- CN 2-Pyrrolidinemethanol, 1-[(3-amino-6,7-dihydro-6-oxo-7-phenylthieno[2,3-b]pyridin-2-yl)carbonyl]-, (2S)- (9Cl) (CA INDEX NAME)

Absolute stereochemistry.

- RN 817177-56-3 CAPLUS
- CN Thieno[2,3-b]pyridin-6(7H)-one, 3-amino-2-nitro-7-phenyl- (CA INDEX NAME)

- RN 817177-58-5 CAPLUS
- CN Piperazine, 1-[(3-amino-6,7-dihydro-6-oxo-7-phenylthieno[2,3-b]pyridin-2-yl)carbonyl]-4-ethyl- (9CI) (CA INDEX NAME)

- IT 639481-38-2P, 3-Amino-7-(4-methylphenyl)-6-oxo-6,7dihydrothieno[2,3-b]pyridime-2-carbonitrile 639481-44-0P,
 3-Amino-7-(2-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2carbonitrile
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP
 (Preparation)
 (process for preparing 3-aminothienopyridone derivs. and their
 applications to the synthesis of p38 MAP kinase inhibitors)
- RN 639481-38-2 CAPLUS CN Thieno[2,3-b]pyridine-2-carbonitrile, 3-amino-6,7-dihydro-7-(4-methylphenyl)-6-oxo- (CA INDEX NAME)

RN 639481-44-0 CAPLUS CN Thieno[2, 3-b]pyridine-2-carbonitrile, 3-amino-6,7-dihydro-7-(2-methylphenyl)-6-oxo- (CA INDEX NAME)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1154721 CAPLUS

DOCUMENT NUMBER: 142:93796

TITLE: Preparation of thienopyridone derivatives as p38 MAPK

inhibitors

INVENTOR(S): Brookings, Daniel Christopher; Davis, Jeremy Martin;

Langham, Barry John

PATENT ASSIGNEE(S): Celltech R & D Limited, UK SOURCE: PCT Int. Appl., 90 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PA | PATENT NO. | | | | KIND DATE | | | APPLICATION NO. | | | | | | DATE | | | |
|---------|------------|------|------|-----|-----------|-----|------|-----------------|-----|------|--------|------|-----|------|-----|------|-----|
| WO | 2004 | 1133 | 48 | | A1 | | 2004 | 1229 | | WO 2 | 2004- | GB26 | 44 | | 2 | 0040 | 618 |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | ΒZ, | CA, | CH, |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | KZ, | LC, |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | NI, |
| | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | sc, | SD, | SE, | SG, | SK, | SL, | SY, |
| | | TJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW |
| | RW: | BW, | GH, | GM, | KE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, |
| | | AZ, | BY, | KG, | KZ, | MD, | RU, | TJ, | TM, | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, |
| | | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | IT, | LU, | MC, | NL, | PL, | PT, | RO, | SE, |
| | | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | NE, |
| | | SN, | TD, | TG | | | | | | | | | | | | | |
| AU | 2004 | 2494 | 98 | | A1 | | 2004 | 1229 | | AU 2 | 2004- | 2494 | 98 | | 2 | 0040 | 618 |
| CA | . 2528 | 603 | | | A1 | | 2004 | 1229 | | CA 2 | 2004- | 2528 | 603 | | 2 | 0040 | 618 |
| EP | 1638 | 979 | | | A1 | | 2006 | 0329 | | EP 2 | 2004- | 7429 | 97 | | 2 | 0040 | 618 |
| | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | IE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | AL, | TR, | BG, | CZ, | EE, | HU, | PL, | SK |
| JP | 2007 | 5161 | 62 | | T | | 2007 | 0621 | | JP 2 | 2006- | 5164 | 53 | | 2 | 0040 | 618 |
| US | 2006 | 0247 | 269 | | A1 | | 2006 | 1102 | | US 2 | 2006- | 5610 | 50 | | 2 | 0060 | 629 |
| PRIORIT | Y APP | LN. | INFO | . : | | | | | | GB 2 | 2003- | 1449 | 0 | | A 2 | 0030 | 620 |
| | | | | | | | | | | GB 2 | 2003- | 2949 | 5 | | A 2 | 0031 | 219 |
| | | | | | | | | | | WO 2 | 2004-0 | GB26 | 44 | | W 2 | 0040 | 618 |
| OTHER S | OURCE | (S): | | | MAR | PAT | 142: | 9379 | 6 | | | | | | | | |

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [wherein X = covalent bond, NH or N(alkyl); Y = C(0) or S(0)2, A = (GL2)q; B = (GL2)q; B = (GL2)q; B = (GL2)q; B = GL2)q; B

dihydrothieno[2,3-b]pyridin-2-yl)carbonyl]piperidine-1-carboxylate 816464-48-9P, Benzyl 4-([3-amino-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridin-2-yl)carbonyl]piperidine-1-carboxylate RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of thienopyridone derivs. as p38 MAPK inhibitors)

RN 816464-43-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(3-amino-6,7-dihydro-6-oxo-7-phenylthieno[2,3-b]pyridin-2-yl)carbonyl]-, 9H-fluoren-9-ylmethyl ester (CA INDEX NAME)

RN 816464-48-9 CAPLUS CN 1-Piperidinecarboxy

CN 1-Piperidinecarboxylic acid, 4-[(3-amino-6,7-dihydro-6-oxo-7-phenylthieno[2,3-b]pyridin-2-yl)carbonyl]-, phenylmethyl ester (CA INDEX NAME)

REFERENCE COUNT:

4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L4 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1154720 CAPLUS

DOCUMENT NUMBER: 142:93795

TITLE: Preparation of thienopyridone derivatives as

p38α kinase inhibitors

INVENTOR(S): Brookings, Daniel Christopher; Davis, Jeremy Martin;

Langham, Barry John

PATENT ASSIGNEE(S): Celltech R & D Limited, UK SOURCE: PCT Int. Appl., 129 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

GI

| PA' | PATENT NO. | | | | | | | | | | | | NO. | | | ATE | | |
|---------|----------------------|------|------|-----|------|------|------|------|------|------|------|------|-------|-----|-----|------|-----|----|
| WO | 2004 | | | | A1 | | 2004 | 1229 | | WO 2 | 004- | GB26 | 21 | | 2 | | | |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | ΚZ, | LC, | |
| | | | | | | | | MA, | | | | | | | | | | |
| | | NO, | ΝZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | |
| | | ΤJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | zw | |
| | RW: | BW, | GH, | GM, | KE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | |
| | | | | | | | | ΤJ, | | | | | | | | | | |
| | | | | | | | | HU, | | | | | | | | | | |
| | | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | ΝE, | |
| | | | TD, | | | | | | | | | | | | | | | |
| | 2004 | | | | | | | | | | | | | | | | | |
| CA | 2528 | 602 | | | A1 | | 2004 | 1229 | 1 | CA 2 | 004- | 2528 | 602 | | 2 | 0040 | 618 | |
| EP | 1641 | | | | | | | | | | | | | | | | | |
| | R: | ΑT, | | | | | | | | | | | | | | | | |
| | | IE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | AL, | TR, | BG, | CZ, | EE, | HU, | PL, | SK, | HR |
| BR | 2004 1809 2007 | 0106 | 53 | | A | | 2006 | 0704 | | BR 2 | 004- | 1065 | 3 | | 2 | 0040 | 618 | |
| CN | 1809 | 575 | | | A | | 2006 | 0726 | | CN 2 | 004- | 8001 | 7320 | | 2 | 0040 | 618 | |
| JP | 2007 | 5161 | 61 | | T | | 2007 | 0621 | | JP 2 | 006- | 5164 | 43 | | 2 | 0040 | 618 | |
| MX | 2005 | PA13 | 227 | | A | | 2006 | 0309 | | MX 2 | 005- | PA13 | 227 | | 2 | 0051 | 206 | |
| IN | 2005 2006 | DN05 | 823 | | A | | 2008 | 0201 | | IN 2 | 005- | DN58 | 23 | | 2 | 0051 | 214 | |
| NO | 2006 | 0002 | 79 | | A | | 2006 | 0320 | | NO 2 | 006- | 279 | | | 2 | 0060 | 119 | |
| | 2007 | | | | A1 | | 2007 | 0503 | | US 2 | 006- | 5610 | 52 | | 2 | 0061 | 010 | |
| PRIORIT | Y APP | LN. | INFO | . : | | | | | | | | | 2 | | | | | |
| | | | | | | | | | | | | | 5 | | | | | |
| | | | | | | | | | | | | | 21 | | W 2 | 0040 | 618 | |
| OTHER S | OURCE | (S): | | | CASI | REAC | T 14 | 2:93 | 795; | MAR | PAT | 142: | 9379. | 5 | | | | |

- AB Title compds. I [Y = linking group CO, SO2; n = 0-1; m, p = 1-4; Rl = OH, alkylene-OH, alkoxy, etc.; Alk1 = alkylene; Cyl = cycloaliph., aromatic, heteroarom., etc.; Ar = (un)substituted (heterolaromatic, etc.] are prepared For instance, 3-Bromo-7-phenyl-2-[[(2R)-2-[((tetrahydro-2H-pyran-2-yl)oxy)methyl]pyrrolidin-1-yl]carbonyl|thiene(2,3-b|pyridin-6(7H)-one (preparation given) is coupled to 2,4-difluoroaniline (PhMe, Cs2CO3, BINAP, Pd2(dba)3, reflux 48 h) and the resulting product deprotected with HCl to give II. All compds. inhibit p38 kinase with IC50 of 1 µM or less. I are useful for the treatment and/or prevention of immune or inflammatory disorders.
- II 639481-35-9P, 3-Amino-7-(2-chlorophenyl)-6-oxo-6,7dihydrothieno[2,3-b]pyridine-2-carbonitrile
 R1: RCI (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
- (preparation of thienopyridone derivs. as p38 α kinase inhibitors) RN 639481-35-9 CAPLUS
- CN Thieno(2,3-b)pyridine-2-carbonitrile, 3-amino-7-(2-chloropheny1)-6,7-dihydro-6-oxo- (CA INDEX NAME)

REFERENCE COUNT:

3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L4 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:143162 CAPLUS

DOCUMENT NUMBER: 140:181432

TITLE: Preparation of bicyclic heteroaromatic compounds as

p38 kinase inhibitors

INVENTOR(S): Brookings, Daniel Christopher; Davis, Jeremy Martin;

Langham, Barry John

PATENT ASSIGNEE(S): Celltech R & D Limited, UK SOURCE: PCT Int. Appl., 75 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

| PATENT NO. | PATENT NO. | | | | | | APPLICATION NO. | | | | | | | | | |
|------------------------|------------|------|-----|------|------|-----|-----------------|--------|------|-----|-----|-----|------|-----|--|--|
| WO 200401492 | | | | 2004 | 0219 | | | | | | | | 0030 | 811 | | |
| W: AE, | AG, AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BY, | BZ, | CA, | CH, | CN, | | |
| co, | CR, CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | ES, | FI, | GB, | GD, | GE, | GH, | | |
| GM, | HR, HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | KZ, | LC, | LK, | LR, | | |
| LS, | LT, LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NI, | NO, | ΝZ, | OM, | | |
| PG, | PH, PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | ΤJ, | TM, | TN, | | |
| TR, | TT, TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | | | | | |
| RW: GH, | | | | | | | | | | | | | | | | |
| | KZ, MD, | | | | | | | | | | | | | | | |
| | FR, GB, | | | | | | | | | | | | | | | |
| | BJ, CF, | | | | | | | | | | | | | | | |
| CA 2495518 | | | | | | | | | | | | | | | | |
| AU 200325299 | | | | | | | | | | | | | | | | |
| EP 1539769 | | A1 | | 2005 | 0615 | | EP 2 | 2003- | 7842 | 88 | | 2 | 0030 | 811 | | |
| R: AT, | BE, CH, | DE, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, | | |
| IE, | SI, LT, | LV, | FI, | RO, | MK, | CY, | AL, | TR, | BG, | CZ, | EE, | HU, | SK | | | |
| JP 200553730 | 0 | T | | 2005 | 1208 | | JP 2 | 2004- | 5270 | 55 | | 2 | 0030 | 811 | | |
| US 200600254 | 128 | A1 | | 2006 | 0202 | | US 2 | 2005- | 5241 | 99 | | 2 | 0050 | 728 | | |
| PRIORITY APPLN. 1 | NFO.: | | | | | | GB 2 | 2002- | 1880 | 0 | | A 2 | 0020 | 813 | | |
| | | | | | | | WO 2 | 2003-0 | GB35 | 01 | 1 | W 2 | 0030 | 811 | | |
| OTHER SOURCE(S): GI | | MARP | AT | 140: | 1814 | 32 | | | | | | | | | | |

NB Title compds. I [A = N, (un)substituted CH, dashed line is a double bond; A = (un)substituted NH, CH2, dashed line is a single bond; X = O, S, (un)substituted NH, S(O), SO2; Y = N, (un)substituted CH; Alk = (un)substituted aliphatic, heteroaliph.; n = 0, 1; Ar = (un)substituted aromatic, heteroarom.; L = atom, alkylene, heteroalkylene; L1 = bond, linker atom, linker group; Cy = H, (un)substituted cycloaliph, polycycloaliph., heterocyclic, polyheterocyclic, aromatic, heteroarom.; R = H, CN, (un)substituted alkyl, CO2H, CONH2], especially 6-oxo-6, 7-dihydrothieno[2,3-

b]pyridine derivs., which are inhibitors of p38 kinase of use in the treatment and/or prevention of immune or inflammatory disorders (no data) were prepared Thus, II [Rl = NHCH2Ph, r2 = Ph] was prepared from 2-chloronicotinonitrile and HSCH2CO2Et via II [Rl = Br, R2 = H] by

treatment with PhB(OH)2 and PhCH2NH2. II 639481-33-7P 639481-34-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of bicyclic heteroarom. compds. as p38 kinase inhibitors)

RN 639481-33-7 CAPLUS
CN Thieno[2,3-b]pyridine-2-carbonitrile, 3-amino-6,7-dihydro-6-oxo-7-phenyl(CA INDEX NAME)

RN 639481-34-8 CAPLUS

NH2

CN Thieno[2,3-b]pyridine-2-carboxylic acid, 3-amino-6,7-dihydro-6-oxo-7-phenyl-, ethyl ester (CA INDEX NAME)

REFERENCE COUNT:

4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L4 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:2888 CAPLUS

DOCUMENT NUMBER: 140:59658

TITLE: Preparation of arylamine substituted bicyclic hetero-aromatic compounds as p38 kinase inhibitors

INVENTOR(S): Brookings, Daniel Christopher; Davis, Jeremy Martin;

Langham, Barry John
PATENT ASSIGNEE(S): Celltech R & D Limited, UK

SOURCE: PCT Int. Appl., 174 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PA | PATENT NO. | | | | | | | | APPLICATION NO | | | | | | | | | |
|---------|------------|------|------|-----|-----|-----|------|------|----------------|------|--------|-------|-----|-----|-----|------|-----|--|
| WO | 2004 | | | | | | | | | | | | | | | 0030 | 620 | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | B | BG, BG | , BR, | BY, | BZ, | CA, | CH, | CN, | |
| | | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | . E0 | , EE | , ES, | FI, | GB, | GD, | GE, | GH, | |
| | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | , KI | E, KG | , KP, | KR, | KZ, | LC, | LK, | LR, | |
| | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | . MI | I, MW | , MX, | MZ, | NI, | NO, | NZ, | OM, | |
| | | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | , SI | E, SG | , SK, | SL, | TJ, | TM, | TN, | TR, | |
| | | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | Y. | J, ZA | , ZM, | ZW | | | | | |
| | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | , S | z, TZ | , UG, | ZM, | ZW, | AM, | AZ, | BY, | |
| | | KG, | ΚZ, | MD, | RU, | ΤJ, | TM, | ΑT, | BE, | , B0 | G, CH | , CY, | CZ, | DE, | DK, | EE, | ES, | |
| | | | | | | | | | | | | , PT, | | | | | | |
| | | | | | | | | | | | | , ML, | | | | | | |
| | 2487 | | | | | | | | | | | | | | | | | |
| | 2003 | | | | | | | | | | | | | | | | | |
| | 2003 | | | | | | | | | | | | | | | | | |
| EP | 1551 | | | | | | | | | | | -7608 | | | | | | |
| | R: | | | | | | | | | | | , LI, | | | | | | |
| | | | | | | | | | | | | , BG, | | | | | | |
| CN | 1671 | 715 | | | Α | | 2005 | 0921 | | CN | 2003 | -8183 | 71 | | 2 | 0030 | 620 | |
| JP | 2005 | 5308 | 38 | | Т | | 2005 | 1013 | | JΡ | 2004 | -5150 | 43 | | 2 | 0030 | 620 | |
| | 5377 | 40 | | | A | | 2006 | 0331 | | NZ | 2003 | -5377 | 40 | | 2 | 0030 | 620 | |
| MX | 2004 | PA12 | 746 | | A | | | | | | | | | | | | | |
| | 2005 | | | | | | | | | | | -306 | | | | | | |
| | 2005 | | | | | | | | | | | | | | | | | |
| | 2006 | | | | A1 | | 2006 | 0105 | | | | | | | | | | |
| PRIORIT | Y APP | LN. | INFO | . : | | | | | | | | -1426 | | | | | | |
| | | | | | | | | | | WO | 2003 | -GB26 | 67 | | W 2 | 0030 | 520 | |
| OTHER S | OURCE | (S): | | | MAR | PAT | 140: | 5965 | 3 | | | | | | | | | |

AB Bicyclic heteroarom. derivs. I; where the dashed line joining A and C(Ra) is present and represents a bond and A is a -N= atom or a -C(Rb)= group, or the dashed line is absent and A is a -N(Rb)-, or -C(Rb)(Rc)- group; X is an -O-, -S- or substituted nitrogen atom or a -S(O)-, -S(O2)- or -MH-

group; Y is a nitrogen or substituted carbon atom or a -CH = group; n is zero or the integer !; Alkl is an optionally substituted aliphatic or hetero-aliphatic chain L1 is a covalent bond or a linker atom or group; Cyl is a hydrogen atom or an optionally substituted cyclo-aliphatic, poly-cyclo-aliphatic, hetero-cyclo-aliphatic, poly-hetero-cyclo-aliphatic,

aromatic or

hetero-aromatic group; Ar is an optionally substituted aromatic or heteroarom.

group; and the remaining substituents are defined in the specification.

The compds. are potent and selective inhibitors of p38 kinase and are of
use in the prophylaxis and treatment of immune or inflammatory disorders.

Thus, 3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-N-pyrrolidin-3-yl-6,7dihydrothieno[2,3-b]pyridine-2-carboxamide was prepared as as p38 kinase
inhibitor. In the p38 inhibitor assays described above compds. of the
invention have ICSO values of around 1 μM and below. The compds. of
the invention are clearly potent inhibitors of p38 kinase, especially p38α

kinase. 15 639481-33-7P 639481-34-8P 639481-35-9P 639481-38-2P 639481-42-8P 639481-44-0P 639481-76-8P 639482-12-5P 639482-14-7P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of arvlamine substituted biovelic hetero-aromatic comods, as

kinase inhibitors) RN 639481-33-7 CAPLUS

CN Thieno[2,3-b]pyridine-2-carbonitrile, 3-amino-6,7-dihydro-6-oxo-7-phenyl-(CA INDEX NAME)

8 E a

RN 639481-34-8 CAPLUS

CN Thieno[2,3-b]pyridine-2-carboxylic acid, 3-amino-6,7-dihydro-6-oxo-7-phenyl-, ethyl ester (CA INDEX NAME)

RN 639481-35-9 CAPLUS

CN Thieno[2,3-b]pyridine-2-carbonitrile, 3-amino-7-(2-chlorophenyl)-6,7-dihydro-6-oxo- (CA INDEX NAME)

- RN 639481-38-2 CAPLUS
- CN Thieno[2,3-b]pyridine-2-carbonitrile, 3-amino-6,7-dihydro-7-(4-methylphenyl)-6-oxo- (CA INDEX NAME)

- RN 639481-42-8 CAPLUS
- CN Thieno[2,3-b]pyridine-2-carbonitrile, 3-amino-7-cyclopropyl-6,7-dihydro-6-oxo- (CA INDEX NAME)

- RN 639481-44-0 CAPLUS
- CN Thieno[2,3-b]pyridine-2-carbonitrile, 3-amino-6,7-dihydro-7-(2-methylphenyl)-6-oxo- (CA INDEX NAME)

CN Thieno[2,3-b]pyridine-2-carboxylic acid, 3-amino-5-bromo-6,7-dihydro-4-methyl-6-oxo-7-phenyl-, ethyl ester (CA INDEX NAME)

- RN 639481-76-8 CAPLUS
- CN Thieno[2,3-b]pyridine-2-carboxylic acid, 3-amino-6,7-dihydro-4-methyl-6-oxo-7-phenyl-, ethyl ester (CA INDEX NAME)

- RN 639482-12-5 CAPLUS
- CN Thieno[2,3-b]pyridin-6(7H)-one, 2-acetyl-3-amino-7-phenyl- (CA INDEX NAME)

- RN 639482-14-7 CAPLUS
- CN Thieno[2,3-b]pyridine-2-carbonitrile, 3-amino-6,7-dihydro-6-oxo-7-(3-pyridinyl)- (CA INDEX NAME)

- REFERENCE COUNT:
- 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

T. 4 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:29695 CAPLUS

DOCUMENT NUMBER: 136:325480

TITLE: Novel synthesis of thiazole, coumarin, pyridine, thiophene and thieno[2,3-b]pyridine derivatives AUTHOR(S):

E1-Taweel, F. M. A.; Elagamey, A. A.; E1-Kenawy, A.

A.; Waly, M. A.

CORPORATE SOURCE: Department of Chemistry, Faculty of Science, Mansoura

University, New Damietta, Egypt

SOURCE: Phosphorus, Sulfur and Silicon and the Related

Elements (2001), 176, 215-225 CODEN: PSSLEC; ISSN: 1042-6507

PUBLISHER: Gordon & Breach Science Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:325480

Several new thiazole, coumarin, pyridine, thiophene, and thienopyridines ΔR were prepared from 4-chloroacetylantipyrine and activated nitriles as starting materials.

413570-88-4P

ΙT

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of thiazole, coumarin, pyridine, thiophene, and thieno[2,3-b]pyridine derivs.)

RN 413570-88-4 CAPLUS

CN Thieno[2,3-b]pyridine-5-carbonitrile, 3,4-diamino-2-[(2,3-dihydro-1,5dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)carbonyl]-6,7-dihydro-6-oxo-7phenyl- (CA INDEX NAME)

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L4 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:531099 CAPLUS

DOCUMENT NUMBER: 117:131099

TITLE: One-pot synthesis of polyfunctionally substituted

thiophenes: thieno[2,3-b]pyridine and thieno[3,4-d]pyridazine derivatives

AUTHOR(S): Mohareb, Rafat Milad

Fac. Sci., Cairo Univ., Giza, Egypt

SOURCE: Gazzetta Chimica Italiana (1992), 122(4), 147-50

CODEN: GCITA9: ISSN: 0016-5603

DOCUMENT TYPE: Journal English

LANGUAGE:

AB The enaminonitriles Eto2CCH2C(NH2):C(CN)CCO2Et), NCCH2C(NH2):C(CN)2, and MeC(:NH)CH2CN treated with Ph isothiocyanate followed by cyclization with PHCH2COBr gave the thiophene I, the thieno[2,3-b]pyridine II and the thiophene III, resp. The reactivity of the reaction products toward different reagents to form heterocyclic and fused heterocyclic ring systems was confirmed.

143208-39-3P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 143208-39-3 CAPLUS

CN Thieno[2,3-b]pyridine-5-carbonitrile, 3,4-diamino-2-benzoyl-6,7-dihydro-6oxo-7-phenvl- (CA INDEX NAME)

L4 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:407844 CAPLUS

DOCUMENT NUMBER: 117:7844

TITLE: Novel synthesis of 4-(coumarin-3-v1)-1,3-thiazole, 2-(coumarin-3-carbonyl)thieno[2,3-b]pyridine, and

2-(coumarin-3-carbonyl)thiophene derivatives Mohareb, Rafat Milad; Shams, Hoda Zaki; Aziz, Suzan AUTHOR(S):

Ibrahim

CORPORATE SOURCE: Fac. Sci., Cairo Univ., Giza, Egypt

Journal of Chemical Research, Synopses (1992), (5),

154 - 5

CODEN: JRPSDC; ISSN: 0308-2342

DOCUMENT TYPE: Journal LANGUAGE: English

CASREACT 117:7844 OTHER SOURCE(S):

GT

SOURCE:

AΒ The active methylene reagents CH2RR1 (R = CN, R1 = CO2Et; R = COMe, R1 = COMe, CO2Et, CONHPh) react with PhNCS followed by cyclization with I bromoacetylcoumarin to afford the thiazole derivs. II, whereas CH2RR1(R = CN, R1 = CONH2, CSNH2, CONHPh) react with the same reagents at both low and high temps. to afford III and the thiophene derivs. IΤ

III

141633-02-5P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 141633-02-5 CAPLUS

Thieno[2,3-b]pyridine-5-carbonitrile, 3,4-diamino-6,7-dihydro-6-oxo-2-[(2-CN oxo-2H-1-benzopyran-3-yl)carbonyl]-7-phenyl- (CA INDEX NAME)

| => log y COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|--|---------------------|------------------|
| FULL ESTIMATED COST | 58.34 | 236.91 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL |
| CA SUBSCRIBER PRICE | -8.00 | -8.00 |

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